

Plant Inventory at Fort Union Trading Post National Historic Site.

PRINCIPLE INVESTIGATOR:

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PROJECT STATEMENT:

Fort Union Trading Post National Historic Site (NHS) lies along the Missouri River in the north central Great Plains. The park contains native and restored grasslands and floodplain forests. The National Park Service needs a baseline floristic inventory for the park. This statement-of-work describes the project.

OBJECTIVES:

- Conduct the inventory in a way that at least 90% of the vascular plant species occurring at the park are documented in a scientifically credible manner.
- Make a qualitative assessment of the abundance of each species.
- Collect voucher specimens for each species (excluding species of concern: see methods).

METHODS:

The Principle Investigator (PI) will walk all habitat types in the park. The PI will use standard floristic inventory procedures to identify and document all vascular plant species observed. Identification shall be to the species level at a minimum. A minimum of 4 (8-hour) days shall be spent in the field, distributed throughout the growing season. The PI and/or people working on her behalf are required to contact park staff prior to conducting field work at the park (contact the Northern Great Plains I&M Network Coordinator for a list of park contacts).

An estimate of abundance shall be made for all plant species observed. The categories to use shall be; abundant, common, uncommon, rare (contact the I&M Coordinator for definitions). This assessment is expected to be qualitative and subjective based on the observations of the PI while conducting the field work.

A voucher specimen will be collected for all species except for federal or state-listed endangered or threatened species; however, the PI shall get permission from park staff prior to collecting species that are rare in the park, on the State of North Dakota species of concern list, or where collection will have harmful affects in the judgement of the PI. Voucher specimens shall be collected and prepared using standard botanical collection protocols. Standard metadata for botanical collections shall be recorded for all vouchers. Specimens will be delivered to the National Park Service in a format suitable for final mounting. The PI will advise and work with NPS staff to assure the specimens are mounted appropriately. Specimens are the property of the National Park Service.

Notes shall be taken on areas not surveyed (if any) and why they were not surveyed. Notes shall be taken on factors that may have affected the completeness of the field work (e.g., recent burns, herbicide applications, high water). The Final Report shall include specific management recommendations the park should consider for management of healthy natural ecosystem, in terms of plant species diversity, noxious weeds, and rare species.

PRODUCTS:

- A Final Report shall be delivered in standard scientific format including an introduction, methodology, results, and discussion. Analysis of the completeness of the surveys should be included in the reports. Management recommendations shall be explicitly stated in the discussion section. The report shall be submitted in MS Word format (other formats may be accepted pending approval by the I&M Coordinator).
- A Progress Report by December 31 of 2003 should the project not be completed by that date. The Progress Report shall describe work completed in 2003 and a schedule of work for 2004.
- An Excel file with a list of plant species documented and their relative abundance (other formats may be accepted pending approval by the I&M Coordinator).
- If available, original field notebooks, notes, and photographs along with accompanying documentation.
- Voucher specimens in a format suitable for final mounting.

PROJECT SCHEDULE:

May-September 2003. Conduct field studies.

May-September 2004. Conduct field studies (if necessary).

December 31 2004. Deadline for Principle Investigator to submit to the NGP Network Coordinator all products identified above (unless otherwise directed by the NGP Network Coordinator).

BUDGET:

The budget for all expenses (salary, travel, lodging) is \$2,500. Payment will be disbursed by check at the receipt of the deliverables listed above.